



Rodent Body Condition Scoring Guidelines

Objective:	To evaluate the overall condition of rodents
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Date:	November 7, 2023

General

Body condition scoring (BCS) is a useful tool for evaluating the overall condition of the rat or mouse. Techniques such as obtaining body weight regularly may be impractical for some studies or for large numbers of animals. When the study involves monitoring the health of animals over a specified period of time, BCS offers a useful, rapid, practical, and objective assessment of body reserves or fat accumulation in animals. This can be ideal for animals with ascites, organ enlargement or tumor development. BCS can be utilized in addition to other forms of monitoring such as hydration status, mentation, and weight loss to assess the overall health status of animals o study. BCS is particularly helpful in cases where pregnancy, organomegaly, or tumor growth (particularly intra-abdominal growth) may interfere with body weight assessment.

Use of this method does not preclude other criteria for premature euthanasia (such as hunched posture, ruffled hair coat, reluctance to move, and/or tumor diameter measurements) but should be used in conjunction with these standards.

As an endpoint for euthanasia, the highest body condition score (or healthiest body condition score) that will yield statistically significant and meaningful data must be used. If the research requires that animals must progress to a body condition score that is deemed unhealthy for a given strain or species, this should be scientifically justified in the animal use protocol.

To minimize pain and distress in research animals, consultation with the Attending Veterinarian prior to initiation of the study is necessary to determine implementation of palliative measures.

Studies where animals progress to a body condition score that is deemed unhealthy, and pain & distress are *not* mitigated, may result in USDA Pain Category E classification (resulting in additional guidelines and requirements).

The Attending Veterinarian should always be consulted if there are questions.

Guidelines

BCS is simple to perform. When restraining a rat or mouse by the base of its tail, using your thumb and middle finger note its body condition by passing the index finger of the same hand over the sacroiliac bones (back and pubic bones) If this is awkward for you, a two-handed approach can be used instead. This can be done while the animal is on the floor of the cage, or on the wire cage top. This may take some practice, but once mastered, is quick and easy.

This scale is a continuum, and determining where in the spectrum a particular animal falls is accomplished most consistently if it is the same person from the lab who evaluates the animals on a

regular basis. The frequency of monitoring must be discussed in the protocol and would be dependent on experimental conditions.

Scoring

The body condition is scored on a scale of 1 through 5.

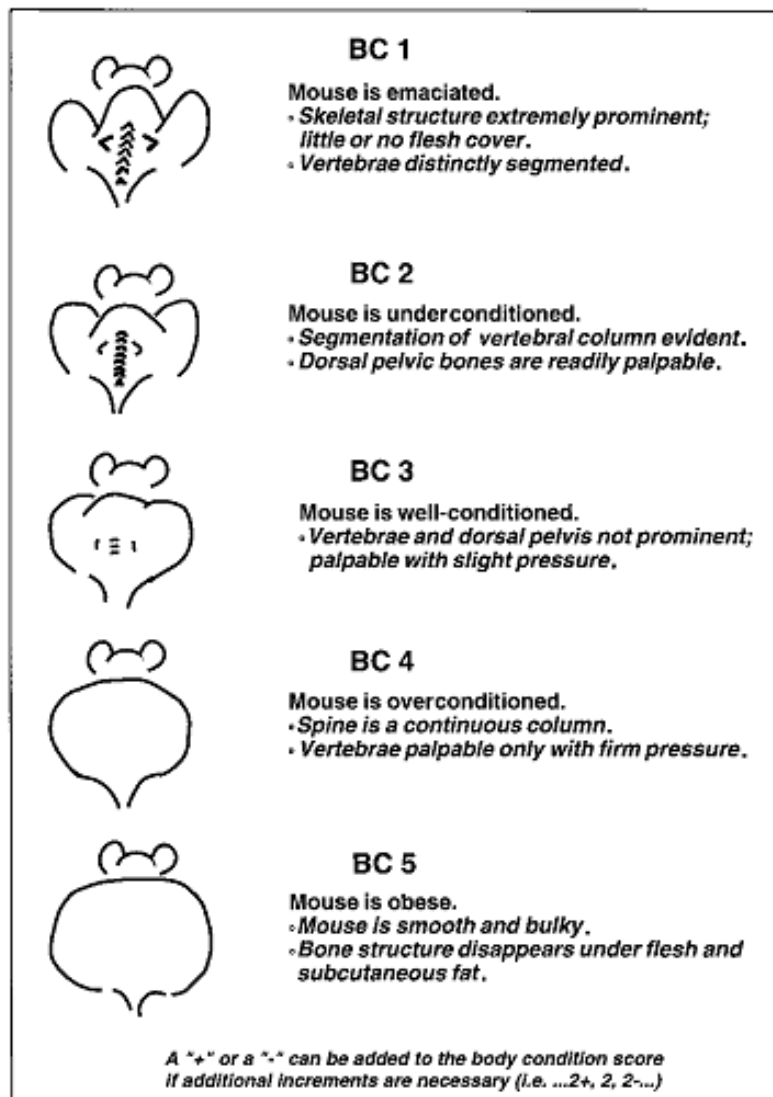
BCS1: If a rat or mouse is found in this condition, **euthanasia must be performed.**

BCS2: At this stage, as the animal progresses from BCS3 to BCS2, more careful observation is warranted. Supportive care (moistened food on the cage floor, plus a water source, plus other calorie sources – such as sunflower seeds or cereal) should be initiated, if it would not interfere with the outcome of the experiment. **If data has been obtained once the mouse reaches this body condition, euthanasia is required.**

BCS3: This is optimal rodent body condition.

BCS4: The animal is beginning to gain weight.

BCS5: The animal is obese. The feeding of a lower-fat, lower-protein chow may be considered at this point for optimal health.



Sources

Guidelines for Assessing the Health and Condition of Mice. Charmaine J. Foltz and Mollie Ullman-Cullere. *Lab Animal*. April 1999. Vol 28, No. 4, pps. 28-32.

Use of body condition scoring as an endpoint for tumor growth studies. Debra L. Hickman. Report to the Department of Veterans Affairs, January 31, 2006.

Revision History

Approved December 11, 2011

Re-approved May 19, 2014; April 24, 2017; March 23, 2020

Administrative changes September 16, 2022

Revised November 7, 2023